

IN THE CLAIMS:

1. (Currently Amended) A process for removing a contaminant from a substrate comprising:
placing the substrate within a chamber, wherein the substrate includes a pseudoplastic material and the contaminant;
exposing the pseudoplastic material to a supercritical fluid to remove at least part of the contaminant from the substrate;
flowing the supercritical fluid to a separator that lies at an elevation lower than the chamber;
separating at least a portion of the contaminant from a compound within the supercritical fluid; and
removing the substrate from the chamber after exposing,
wherein a shape of the pseudoplastic material, after removing, is not significantly changed when compared to the shape of the pseudoplastic material, before placing.
2. (Canceled)
3. (Original) The process of claim 1, wherein:
the supercritical fluid comprises molecules with a dipole moment less than approximately one; and
the contaminant includes water.
- 4 - 5. (Canceled)
6. (Original) The process of claim 1, further comprising purging the chamber with a gas before exposing, wherein the gas and the supercritical fluid comprise a same molecular compound.
7. (Canceled)
8. (Currently amended) The process of claim 17, wherein:
exposing is performed at an exposure temperature of at least a critical temperature of the supercritical fluid; and
separating is performed at a separation temperature below the critical temperature of the supercritical fluid.

9. (Currently amended) The process of claim 1, further comprising decompressing the chamber after exposing, wherein decompressing is performed while the substrate lies within the chamber and at a rate such that the supercritical fluid does not form a liquid or a solid.

10. (Canceled)

11. (Original) The process of claim 1, wherein:

the pseudoplastic material is at least part of a patterned organic layer defining an opening;
and
the opening has an aspect ratio of at least approximately 2:1.

12. (Original) The process of claim 1, wherein exposing is performed at least until an endpoint is detected.

13. (Canceled)

14. (Currently amended) A process for removing a contaminant from a substrate comprising:

placing the substrate within a chamber, wherein:

the contaminant overlies the substrate ~~includes the contaminant~~; and
the contaminant includes molecules having a dipole moment of at least
approximately one;

exposing the substrate to a supercritical fluid to remove at least part of the contaminant from
the substrate, wherein the supercritical fluid comprises molecules with a dipole
moment less than approximately one;

flowing the supercritical fluid to a separator that lies at an elevation lower than the chamber;
separating at least a portion of the contaminant from a compound within the supercritical
fluid; and

removing the substrate from the chamber after exposing.

15. (Canceled)

16. (Currently amended) The process of claim 145, wherein:

the resist is at least part of substrate comprises a patterned layer defining an opening; the opening has an aspect ratio of at least approximately 2:1; and at least part of the contaminant lies near a bottom of the opening.

17 - 18. (Canceled)

19. (Original) The process of claim 14, further comprising purging the chamber with a gas before exposing, wherein the gas and the supercritical fluid comprise a same molecular compound.

20. (Canceled)

21. (Currently amended) The process of claim 2014, wherein:

exposing is performed at an exposure temperature of at least a critical temperature of the supercritical fluid; and

separating is performed at a separation temperature below the critical temperature of the supercritical fluid.

22. (Currently amended) The process of claim 14, further comprising decompressing the chamber after exposing, wherein decompressing is performed while the substrate lies within the chamber and at a rate such that the supercritical fluid does not form a liquid or a solid.

23. (Canceled)

24. (Original) The process of claim 14, wherein exposing is performed at least until an endpoint is detected.

25 - 33. (Canceled)

34. (New) A process for removing a contaminant from a substrate comprising:
placing the substrate within a chamber, wherein the substrate includes a pseudoplastic material and the contaminant;
exposing the pseudoplastic material to a supercritical fluid to remove at least part of the contaminant from the substrate;

cooling the supercritical fluid to form a liquid, wherein cooling is performed on the supercritical fluid after it has been exposed to the pseudoplastic material; pumping the liquid; heating the liquid to form the supercritical fluid, wherein heating is performed on the liquid after it has been pumped; and removing the substrate from the chamber after exposing, wherein a shape of the pseudoplastic material, after removing, is not significantly changed when compared to the shape of the pseudoplastic material, before placing.

35. (New) The process of claim 34, wherein:

the supercritical fluid comprises molecules with a dipole moment less than approximately one; and
the contaminant includes water.

36. (New) The process of claim 34, further comprising purging the chamber with a gas before exposing, wherein the gas and the supercritical fluid comprise a same molecular compound.

37. (New) The process of claim 34, further comprising:

flowing the supercritical fluid to a separator that lies at an elevation lower than the chamber; and
separating at least a portion of the contaminant from a compound within the supercritical fluid.

38. (New) The process of claim 37, wherein:

exposing is performed at an exposure temperature of at least a critical temperature of the supercritical fluid; and
separating is performed at a separation temperature below the critical temperature of the supercritical fluid.

39. (New) The process of claim 34, further comprising decompressing the chamber after exposing, wherein decompressing is performed while the substrate lies within the chamber and at a rate such that the supercritical fluid does not form a liquid or a solid.

40. (New) The process of claim 34, wherein:

the pseudoplastic material is at least part of a patterned organic layer defining an opening;
and
the opening has an aspect ratio of at least approximately 2:1.

41. (New) The process of claim 34, wherein exposing is performed at least until an endpoint is detected.

42. (New) A process for removing a contaminant from a substrate comprising:

placing the substrate within a chamber, wherein:

the contaminant overlies the substrate; and
the contaminant includes molecules having a dipole moment of at least
approximately one;

exposing the substrate to a supercritical fluid to remove at least part of the contaminant from
the substrate, wherein the supercritical fluid comprises molecules with a dipole
moment less than approximately one;

cooling the supercritical fluid to form a liquid, wherein cooling is performed on the
supercritical fluid after it has been exposed to the pseudoplastic material;

pumping the liquid;

heating the liquid to form the supercritical fluid, wherein heating is performed on the liquid
after it has been pumped; and

removing the substrate from the chamber after exposing.

43. (New) The process of claim 42, wherein:

the resist is at least part of a patterned layer defining an opening;
the opening has an aspect ratio of at least approximately 2:1; and
at least part of the contaminant lies near a bottom of the opening.

44. (New) The process of claim 42, further comprising purging the chamber with a gas before
exposing, wherein the gas and the supercritical fluid comprise a same molecular compound.

45. (New) The process of claim 42, further comprising:

flowing the supercritical fluid to a separator that lies at an elevation lower than the chamber;
and
separating at least a portion of the contaminant from a compound within the supercritical fluid.

46. (New) The process of claim 45, wherein:

exposing is performed at an exposure temperature of at least a critical temperature of the supercritical fluid; and
separating is performed at a separation temperature below the critical temperature of the supercritical fluid.

47. (New) The process of claim 42, further comprising decompressing the chamber after exposing, wherein decompressing is performed while the substrate lies within the chamber and at a rate such that the supercritical fluid does not form a liquid or a solid.

48. (Original) The process of claim 42, wherein exposing is performed at least until an endpoint is detected.